Providing Power to the Nines

BC Hydro in C $500mn Office Campus Development

Attraction is High Power Reliability

More Power Zones to Follow?

By Dave Todd
dtodd@ftenergy.com

BC Hydro and two other companies are teaming up to develop what they hope will be Vancouver, BC's, toniest new address for high-tech companies.

Dubbed Tech-park.com, the 18-acre, C$500 million campus is planned to provide 2.5 million square feet of office space for up to 15,000 workers in 13 low-rise buildings. Among its trappings: a special satellite uplink, basketball courts, 24-hour Seattle-style coffee houses, a putting range, and, the promoters like to point out, constant 60Hz sinusoidal waveforms of voltage and current, all the time.

After all, Tech-park.com is aimed at meeting the growing demand for uninterruptible, smooth power supply on the order of "nine nines", or 99.9999999% reliability. The park is planned to include two dedicated power feeds from BC Hydro, dedicated backup power from a nearby BC Hydro substation, and failsafe devices to handle on-site problems.

Vancouver, BC's Proposed Tech-park.com
Source: Schroeder Properties Ltd.

BC Hydro has yet to establish a specific pricing premium for Tech-Park tennants. But the company's manager of corporate communications Stephen Bruyneel said, "They will pay extra for extra benefits. Everything from the extra cost per square foot to if there's additional redundancies or additional generators on site or additional transformers."

Increasing number of utilities are expected to set aside entire sections of town where they will focus unusually high levels of power quality, said John Mungenast, a Ventu-

© 2000 FT ENERGY

ra, CA-based marketing consultant to several Fortune 500 corporations.

Mr. Mungenast, a former General Electric executive who lectures on international power industry trends, said that real estate developments similar to Vancouver's Tech-park.com are being weighed by some big corporations that want what he calls "extreme power quality."

UNACCEPTABLE THREATS

Power reliability across the U.S. today is about 99.9%. That translates into power disruptions of about 8 hours per year for the typical customer. Six nines, or 99.9999% is a starting point for the Internet and telecom world today. If the entire country were assured a "nine-nines" standard, outage durations would fall to a mere 3/100ths of a second a year, per customer. Blink and it's over.

Yet even a glitch approaching 3/10ths of a second these days can pose unacceptable threats to some high-tech companies.

While such proximity to perfection seems well-nigh unimaginable, pressure to move in that direction is mounting as the U.S. and Canada economies rely ever more heavily on computers and micro-chip-dependent systems to meet a variety of daily needs.

BC Hydro's partners at Tech-park.com include a North American division of ING Realty of the Netherlands and Schroeder Properties Ltd., one of the biggest real estate developers in western Canada and the U.S. Pacific Northwest.

The "lifestyle village" — secure in the knowledge that 95% of BC Hydro's supply is from hydroelectric dams — is intended to be a clean, well-lighted place, bar none, for continuous power-dependent tenants who dismiss voltage spikes and power sags as oh-so 20th-century.

But Schroeder Properties is already looking farther afield to see where the concept might be replicated. Catherine Fronczek, Schroeders's marketing director, described it as puzzling that nothing like Vancouver's Tech-park.com has been attempted in Silicon Valley or the dot-com zone that lies in the shadow of Microsoft's Seattle-area operations.

A REFRIGERATOR OF LOAD

All the more puzzling as computers and associated microchip-driven or related electronic devices now count for more than one-tenth of all U.S. electricity consumption. A single electronic tool like a wireless Palm Pilot draws on servers and computers to such an extent that it adds the load equivalent of a refrigerator to U.S. demand.

To date, the most significant U.S. real estate industry-related efforts to reequip for a

© 2000 FT ENERGY

greater power-quality and power-reliable world have been based either on retrofits or new tenancy arrangements that see high-tech companies lease space in already power-secure facilities, such as the operational centers of major telephone companies.

It's something local authorities should care about, too, said Mr. Mungenast. "What's the true cost of me not being able to get a really high-tech firm until I get my power perfect? What does it cost the community every year that I don't get those 2,500 jobs at $40,000 each?" he asked, arguing that communities lacking proper new-age infrastructure will be at a competitive disadvantage as the decade progresses.

Vancouver, B.C. made a point of ensuring that the Tech-park.com location (on derelict railroad lands, near the heart of the city) has been rezoned to encourage high-tech industry development.

Meanwhile, one of the biggest U.S. developments that keeps with the spirit of Tech-park.com is a two-year experiment in Delaware, OH, being overseen by American Electric Power and Siemens Power & Distribution, under the auspices of the Electric Power Research Institute.

Other, much-touted developments include the architecturally dramatic 4 Times Square office development in New York's theater district which is the new headquarters of the Conde Nast publishing empire and other marquee tenants. Tony address and power to the nines.

© 2000 FT ENERGY